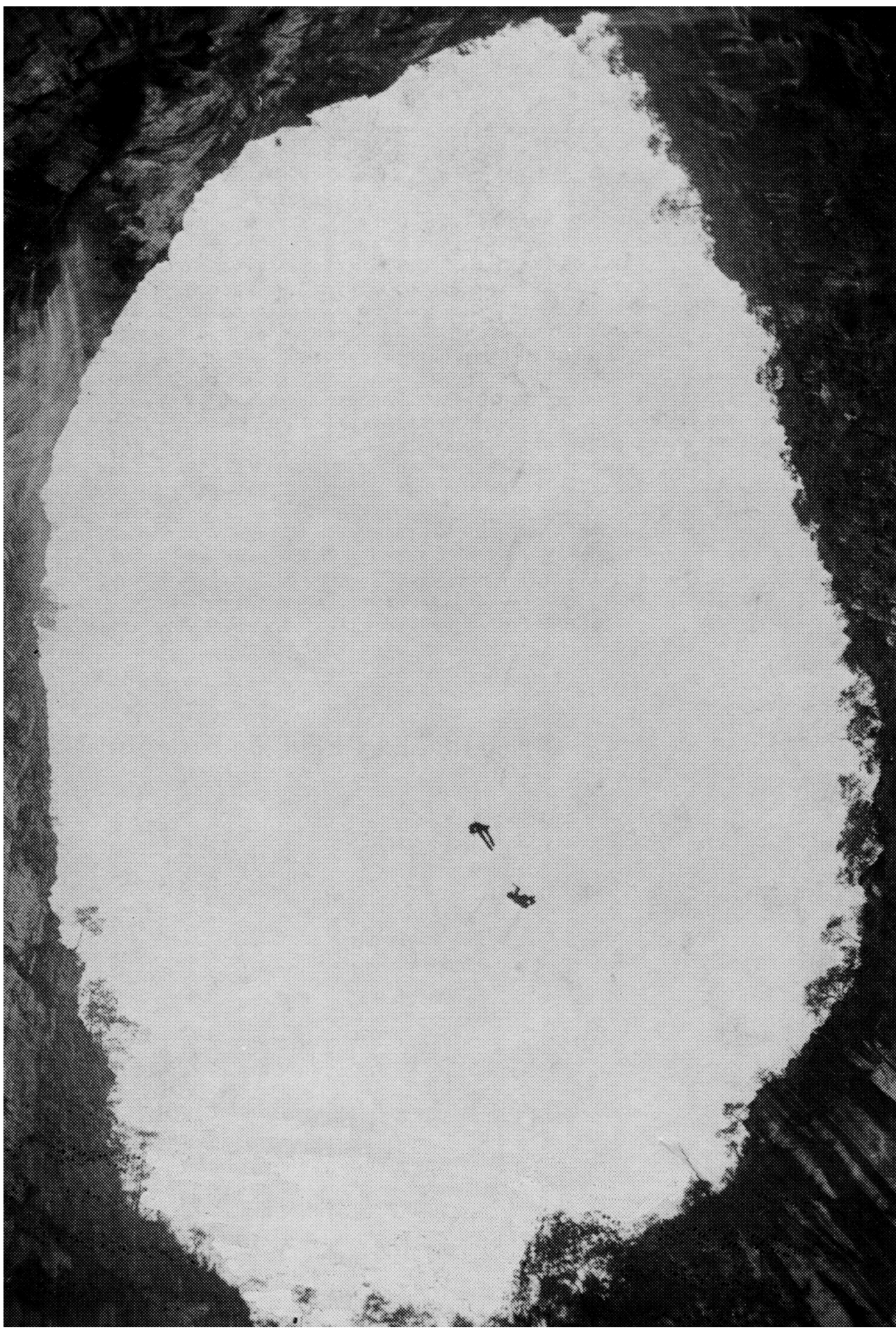


# AMCS





# AMCS ACTIVITIES LETTER

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## Xilitla Plateau Issue

This fifth Activities letter features trip reports to the high karst area above Xilitla, S.L.P. The first article by Bill Stone is a first hand account of discovery as he walks through a new karst area. The second article by Roy Jameson will bring you back to the cold reality of camping in the rain. Mexican caving provides plenty of both.

Though very promising, the difficulty of access and lack of known caves has limited exploration in the high karst. The first cavers to reach this area were Ron Bridgeman, Chuck Pease, Roger Bartholomew, and others in 1966. They packed up the steep trail from Tlamaya to just west of the prominent pinnacle of La Silleta, and checked several caves. But access to the rest of the high area was difficult from this far east - so exploration did not continue. About 1968, T.R. Evans and John Fish crossed the high karst and explored a cave that drained a large area, but it siphoned after a series of small drops. No other promising caves were found, and a brief reconnaissance on foot by Bill Calvert and Victoria Foe who crossed the high area and walked to San Juan at the south end of the La Parada valley also failed to find any promising caves.

These early trips indicated that the high karst had potential, but until Stone and Jameson visited the area to explore Hoya de la Luz, the large tree floored pit located from the air, there was little detailed knowledge. The Xilitla high karst has the potential for some very deep systems, as the water that sinks in the highlands resurges at the Nacimientos of the Rio Huichihuayan at an elevation of 110 meters.

ASSOCIATION FOR MEXICAN CAVE STUDIES

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# Summer In Valles

May 10 - June 17

by

Bill Stone

Participants: Bill Stone, Larry O'Loane, Roy Jameson, Patty Mothes, Tracy Johnson, Gary Stiles, Tom Strong, Louise Strong, Don Broussard, Shari Larason, Gregg Astfalk, Paul Gillette

The 3 weeks between the Conchas Expedition and the end of Spring semester passed quickly. We barely finished the rear end transfusion on the Bozo Bus before being sucked down once more to the land 'o sotanos.

We drove straight from Tucson to Lobos in 32 hours. Gregg had never done a long drop before so we yo-yoed the 620' pit. After a day at Micos and another in Sotano del Arroyo, we headed for "Drinas" hoping to swing into Don's elusive blowing air passage. Both days on the trail were hot and sunny. As expected it rained the day we descended. Two 300' lines down the fissure later we were penduluming through the darkness in search of anything unusual. The most exciting discovery was a can of JUMEX sitting on a stalagmite way out in the freaking hole 250' from the floor! After a spooky ascent through our campfire smoke column we beat a quick retreat to the Condesa.

Gregg and Paul split for Tucson; Larry, Gary and I to Micos. Two days of careful preparations in an innertube under the falls later we arrived in Xilitla. Yep! Black hole time again! I had a vague idea of where the big hole was; I figured any trail that would take us above Cerro la Silleta where we could take bearings would do. The locals recommended starting at El Balcon, 4 miles to the west.

After discovering, amid heckles in Aquismon, that shorts weren't in Vogue in the mountains we waited till we were a half mile down the trail before switching. The heat and humidity were almost unbearable in long pants. Anyone who has been to Xilitla and tilted back their heads to view the towering plateau can rest assured that that is precisely where the trail goes -- straight up! Yes indeed, 8 hours later we were still ascending -- the trail had not leveled once. Nebulous trails, sparse population and confusing compass bearings (like why were we headed west instead of east!) added to the adventure.

Far above the sea of clouds which covered Xilitla, we trod through a karst landscape which puts the Sierra de Guatemala to shame.

By dusk we finally crested a ridge and began descending into a





View across the bottom of Hoya de La Luz  
The foreground is free of vegetation due to falling  
water. Some of the trees are over 100 feet high.



Looking across Llano de Caballo toward Cerro de La Luz,  
the highest peak in the Mititla Area. Llano de Caballo  
is typical of the flat floored dolines in the high karst.

large depression. Only in the last 100 yards did we realize that it was a great alpine meadow, perhaps a half mile across. This, we discovered, was Llano de Los Chiquitos when a lone horseman greeted us the next day at dawn as we huddled around our campfire. Cold? - there was frost on the llano till 9:00 AM! Upon explaining that we were in search of a great hole near la Silleta he professed lack of knowledge of its location -- but invited us to look into another hole on the llano. Our trail weary minds could conjure up nothing but amazement as we strolled down the 100' wide 50' high passage of Cueva del Llano de los Chiquitos. Yes, there are caves above Xilitla!! Two thousand feet later we encountered a series of drops. Having no rope we exited and packed off to the east. Twelve thousand five hundred foot Cerro de la Luz towered above as we labored up the alpine pass. By noon we crested out at around 10,000 feet elevation. Llano de Caballo was visible below. From there we descended still again into Llano de Conejo. A farmer there showed us a view of la Silleta. From the bearing and estimated distance I calculated that we were within two miles of the hole. To our incredible amazement the farmer said he knew where it was!!

After a restless night in our hammocks we were awakened at 7:00 AM by the farmer who was ready to hit the trail. We were half asleep for the first 30 seconds, at which point we were rapidly roused into reality by his super sonic trail speed. Within 25 minutes we had ascended 1000'+ to Llano de Caballo -- (it took 45 minutes to hike down the day before). The pace continued to a large white cliff which I recognized from the air photos as just above the hole. We could have started a fire with the psyche sparks which were flying off! Fifteen minutes of trail chopping later we were standing on the edge of Hoya de la Luz. With the exception of El Sotano I have not seen a more awesome entrance. Rock times averaged 7-1/2 seconds free. What frustration to have all 3000' of our rope back in the truck!

We packed out that afternoon to El Barrio on the Xilitla-Jalpan highway and camped at the Rio Santa Maria.

The next afternoon was spent in Jalpan savoring Peso snow cones till we noticed this guy breaking into the truck. Much to our surprise it was Tracy who had just arrived by bus for the Nogal push. That night we drove to the end of the La Purisima road and packed up for a ten day, 500 meter or perish trip to San Jose. Fully anticipating the hardships of going deep with only a four man crew we spared no food -- two duffels worth of culinary delights. Two more duffels totalling 2000' of rope completed our burro train which left at dawn the next day. After setting up camp just above the Nogal sink, Tracy, Larry and I descended the "second" entrance to Nogal. Surprisingly it ended in a methane lake 140' down. How did we know it was methane? Tracy says, "We used to do this in Arroyo", and stirs up an immense cloud of gas. Since he was swimming with his lamp on we were treated to a fine 4 foot high fire display with Tracy jumping about in the middle!

That afternoon we sorted ropes for the known drops in Nogal, as that had saved considerable time in Conchas.

By dawn Larry was suffering from a bad case of the 'Zumas and decided to remain in camp. We quickly rigged to the first lunch room, termino of previous exploration, about -800'. Ninety feet below we pendulumed across a deep lake and continued down a flowstone cascade. This was followed shortly by a large drop. Gary descended on a 300' line. This pitch,

dubbed "The 170" quickly led to another deep pitch. One hundred twenty feet below Tracy stopped on a flowstone bridge. From here a 100 foot free drop places one in the second lunch room. This large, silt floored room is about 1350' down. A quick inspection yielded no leads, however a fissure on the side opposite the rope opened into a 40' free drop. From there Gary squeaked through a tight fissure crawl to a 30' drop. We bypassed this via a crawlway and 15' climb to a small chamber. A solution scoured stream passage led off. By this time we had run out of rope and decided to bag further exploration.

The next day we R&R'd it in our hammocks talking to the large crowd of locals who wandered through camp. By dawn all four were psyched to push the crawl. Within 6 hours we were sloshing down the pool floored passage, having surveyed in from the first lunch room. The passage dropped in a series of 10' down climbs to a crawlway. A 30' pitch off the crawlway led to a breakdown room. After some careful consideration concerning the stability of this pile of rubble, which was perched directly over the next pitch, three of us decided it was too risky. Tracy, however felt it was perfectly safe. So to demonstrate its stability he pinged it gingerly with his rock hammer. Three or four pings and a half ton of rock down the pit later we decided it was safe! Tracy's "Reconstruction Alley" dropped 70' to a small room overlooking a vast black chamber. A 75' free drop from there places one on the floor of the immense "Hall of Oztotl." Roughly 150' x 100' and 70'-100' high, it is the largest room in the system. The survey later showed this room to be almost precisely 500 meters below the entrance, and another large drop loomed ahead! Unfortunately, we were out of rope again and getting quite fatigued. Seventeen pitches later we staggered into the surface camp at 4 AM. Upon awaking that afternoon we realized that we had used all our rope in getting to the Hall of Oztotl. So the next morning Tracy and Gary hiked back to the truck for our 900' rope. Larry and I went lead checking to Milpas Viejas (later renamed Milpas Lejos). Sotano de la Calavera, located on the ridge west of Nogal was a miniature Cuesta; a 100' free drop into a 100' diameter room with excellent cave pearls and dual light rays casting sufficient illumination so that lamps were unnecessary.

Six other insignificant caves and pits are located way off on the west ridge above Milpa "Lejos" and are not worth returning to.

Armed with another batch of rope, we went to work on Nogal again. It only took 3 hours to arrive at the Hall of Oztotl. Much to our dismay, the next pitch (80') led to a mud sump. We left the cave rigged for photos and started out. Just above the 30' crawlway pitch was a tight fissure lead. Tracy and I popped through to a 15' down climb. This quickly led to a deep pit. We rigged a 150' rope with a big knot on the end and I dropped in. The pitch goes free, all the way to the Hall of Oztotl, so I ended up dangling 100' off the floor just above the final pitch. This is definitely the easiest way in.

Back on the surface, Roy and Patty greeted us. Don and Shari arrived the next day. While we rested, they tied in the surface survey from Nogal to Conchas.

All descended Nogal the following morning. Don, Shari and Patty took photos down to the 140' drop below the fault room. Roy and I derigged from the bottom to "The 170" where the relief team of Tracy, Larry and Gary took over. Everything was out by 2 AM.

During the following two days we finished up all the odds and ends.

[foldout map of Sótano de Nogal followed this page]

Roy dropped 3 pits and a cave near camp, the rest checked two big pits in Laguna de la Cruz, the largest about 180' deep. According to the locals a dirt road will also be built to San Jose through Laguna de la Cruz. This will allow one to drive within 100 yards of Nogal.

Tracy and Gary split for Tucson whilst the rest headed for Micos. Don and Shari left for Austin, and Tom and Louise Strong arrived from Tucson.

Our transformed crew arrived at El Barrio around sunset two days later and made burro arrangements to haul 4 duffels up to Llano de Caballo.

The hike up took only 5 1/2 hours, much to our surprise. Unlike the previous trip, the weather was foul. We chopped a good trail into Hoya de la Luz (follow the orange flags) the following morning and rigged the drop by noon. Larry, Roy and I descended as more clouds lapped in. We then commenced exploring the spooky Land of Luz. It is like no other cave or pit in Mexico. The bottom measures about 600' by 400' and is largely covered by a forest of immense (up to 100' high) trees which shade the leaf covered floor. Large blocks of breakdown are hidden in the trees. A major stream network winds across the floor. The tributaries begin at each of the three large waterfalls which cascade into the pit and culminate in a large siphon pool. There were few leads in this lost world, and those large enough to pass through had ice cold streams dumping in . . . ask Roy! To add to the strangeness, the trees above were coniferious while those below were deciduous. The survey took 3 days and included over 2 kilometers of "passage." (We made the long cave list just going around the entrance!) Book work and instrument reading were aided greatly as no carbide lamps were needed!

We surveyed two large horizontal caves in Llano de Caballo during the remaining portion of our 8 day stay on the plateau and are convinced much more remains to be done. An immense cave is reported in Llano de Garza to the north.

So there you have it, Nogal was 529 meters deep with 18 fine pitches. This makes it the third deepest in the hemisphere and believe me it is a subway compared to Conchas. Any ambitious soul could easily make it number two by surveying to the high side of the entrance and digging precisely 13 feet down in the silt sump at the bottom! And Hoya de la Luz? Why it was a rousing 189 meter free drop. It was definitely a fitting way for me to end my last big trip to Mexico (for awhile).

NEWS      NEWS      NEWS      NEWS      NEWS      NEWS      NEWS

Plans are underway to resume publication of the AMCS Newsletter (the real Newsletter). Vol. V. No. 2 is almost ready for the printer. This issue will be a fascinating blend of old and new-trip reports from years ago mixed with new information such as the complete never-before-in-print account of the exploration of Sotano de Sauz. This is the cave in northern Mexico explored with blocks of ice to combat the 106 F heat. Publication of the Newsletter will free the Activities Letter from the pressure to publish longer articles. Thus the Activities Letter can be shorter, and more frequent and return to its original format of giving short accounts of recent development and proposed trips.



# Xilitla Plateau

June 8-15

7

by Roy Jameson

Participants: Roy Jameson, Patty Mothes, Larry O'Loane, Louise Strong, Tom Strong, Bill Stone

After completing Sotano de Nogal in early June, a return trip was made to the highlands above Xilitla to explore and map the black hole, Hoya de la Luz. At Christmas time 1975 Bill Stone and others had seen a large pit from the air near Cerro de la Luz, a 12,500 foot peak centrally located on the Xilitla plateau. In late May, Larry O'Loane, Gary Stiles, and Bill Stone hiked up from El Balcon (near Xilitla) and located both Hoya de la Luz and the long horizontal Cueva del Llano de los Chiquitos.

On June 8, after a very wet night, camped on the highway above Xilitla at El Barrio, we packed over 1,000 feet of rope and a week's food on a rented burro and began a five hour hike up to Llano de los Caballos, located thirty minutes from Luz. Larry, Tom, Louise, and our Mexican packer, Ambarro Trejo, left early while Patty guarded our packs. Bill and I took the Bozo Bus and my honky car to El Balcon for storage. (Future trips should arrange packing at El Barrio, but since the town is located over 300 feet higher than the main road, vehicles are better left at El Balcon. One should also take sufficient water for a 4 to 5 thousand foot climb.) Roughly an hour later we regrouped a thousand feet above the highway at a coke stand, then contoured around the ridge to the east and a small village. Past a narrow gate the trail trends north until reaching a small cemetery, then becomes indistinct and climbs rapidly for several thousand feet. Eventually the trail leveled out, crossed around a large dolina, crossed over another hill, and passed through Llano de Conejo, a large relatively flat dirt floored valley. After passing through another village we checked a sink into which a stream flows, but it was choked with logs and mud. Since a lot of water enters in one larger and several small holes, digging should be undertaken on a future trip. We followed the stream to the western end of the llano, then climbed a horrible trail 1000 feet straight up to Llano de los Caballos. This trail was so bad the burro had to be taken on a different trail by Larry and the packer. About this time it began to sprinkle, and as a cool day got colder we got very strung out. Louise's knee and left ankle began acting up, so we were all glad to reach Llano de los Caballos and pitch camp. The five thousand foot climb to 9,000' (+) had tired everyone, and so we rested for several hours.

In the late afternoon Patty and I headed for Cueva de Campamiento, which had been briefly checked several weeks earlier. The arroyo which winds across most of the llano enters a cliff in the northern end. Bill had reported that a tremendous log jam made exploration past a 30 meter long entrance room unlikely. Armed solely with a flashlight, Patty and I carefully climbed over, around and under five and ten meter long logs and vegetative debris to the end of the room. We quickly opened up a passage 1 meter wide and 1 meter high, which could be entered by squeezing between some rotten and partially charred logs. I chimneyed past a small waterfall and over a lake until a 3 by 4 meter passage opened in front of me. I followed it 30 meters to a climb



which would have been hazardous holding the flashlight and so returned to camp with Patty for proper caving gear. After informing the others of our luck, we returned to Cueva de Campamiento and explored and collected for several hours. The cave is 394 meters long and 24 meters deep, with several large rooms, some good chimneys, a stream with flatworms, and many speleothems. Flowstone and columns abound. One rather strange "hand formation" became everyone's favorite; standing perhaps two and a half meters high, it consists of four stalagmite fingers cemented together and lying horizontal and one upright "arm." I claim it is a foot, but was voted down. The cave terminates in a mud and leaf banked sump, but needs to be rechecked in a drier season.

Patty and I returned to the surface to a heavy downpour. A small stream in the previously dry arroyo was now entering the cave. We waited perhaps 30 minutes until it got higher and we got colder, then removed outer clothes, which were stuffed into packs, and, retaining boots, sprinted a quarter mile across the llano to camp. The llano was extremely wet; puddles joined to other puddles until it seemed the llano were but one huge puddle! At camp we found Bill and Larry, who had no tent, hanging in hammocks under ponchos, not really dry and quite cold. They had been cooking dinner when the rain began, and had to crawl into sleeping bags while in the hammocks when the rain refused to quit. Patty and I, extremely hungry after the day's exertions, had no choice but to jump in our tent and consume several hard boiled eggs without salt. Pots left out had completely filled by morning, prompting an estimate of a six inch rain. We wondered what Cueva de Campamiento would look like the next day and were glad we had left.

In the morning we awoke to the sound of cows chomping on pots and defecating around the dead campfire. Larry demonstrated his talents at dispersing cows (and bulls) by yelling, running and throwing rocks at them. This continued several days. Clothes left out to dry ran the risk of being eaten, like the green shirt of Patty's. My tent stakes were pulled up, and the yellow plastic ground cloth under the tent was pulled out and chewed through without damaging the tent itself! Each day brought a new surprise.

By noon on the 9th we were hiking northwest towards Hoya de la Luz to begin exploration. The weather had improved; instead of rain the sun occasionally peaked out through what began as higher clouds and later ended as fog. Bill, Larry, and I left first and chopped a trail 400 yards long down to the pit. This being the year for rattlesnakes (ref. Conchas and Nogal expeditions) I managed to step on a foot long specimen while carrying half of the six hundred foot bluewater. Fortunately I jumped very little and avoided pulling either Larry or myself down on top of it. The snake was sluggish, but Bill dispatched it to preclude further incident.

Eventually we arrived at the pit and chopped our way to a good tie off point over a karren block at the south east corner of the entrance lip. Patty, Louise and Tom soon arrived with the rest of the rope, so after a quick lunch Bill, Larry and I entered the pit. The others remained above and began chopping around the pit for the lip surface survey.

Hoya de la Luz has a 188 meter entrance drop when rigged from the highest safe point. Another safe drop of 125 meters from the "photographic rock" is also possible. Rigging elsewhere entails rappelling through vegetation and past loose rock. The pit measures 200 by 125 meters and is covered by a forest below. Thick underbrush and leaves almost completely cover breakdown and soil. Along the sides bare breakdown zones appear where waterfalls spray as much as 100 meters downward after rains. Three main waterfalls occur and originate at various levels. The bottom is relatively flat, but at the eastern end a flowstone mound caps an unvegetated breakdown slope and on the western end breakdown slopes along the wall lead to several cave passages. Only one continues past the daylight zone. A set of climbdowns totaling 10 meters ends when a stream disappears in breakdown. From the main waterfall

# HOYA DE LA LUZ

Cerro De La Luz  
Querétaro, Mexico

TRAVERSE LENGTH 2.2 KILOMETERS

DEPTH 193 METERS

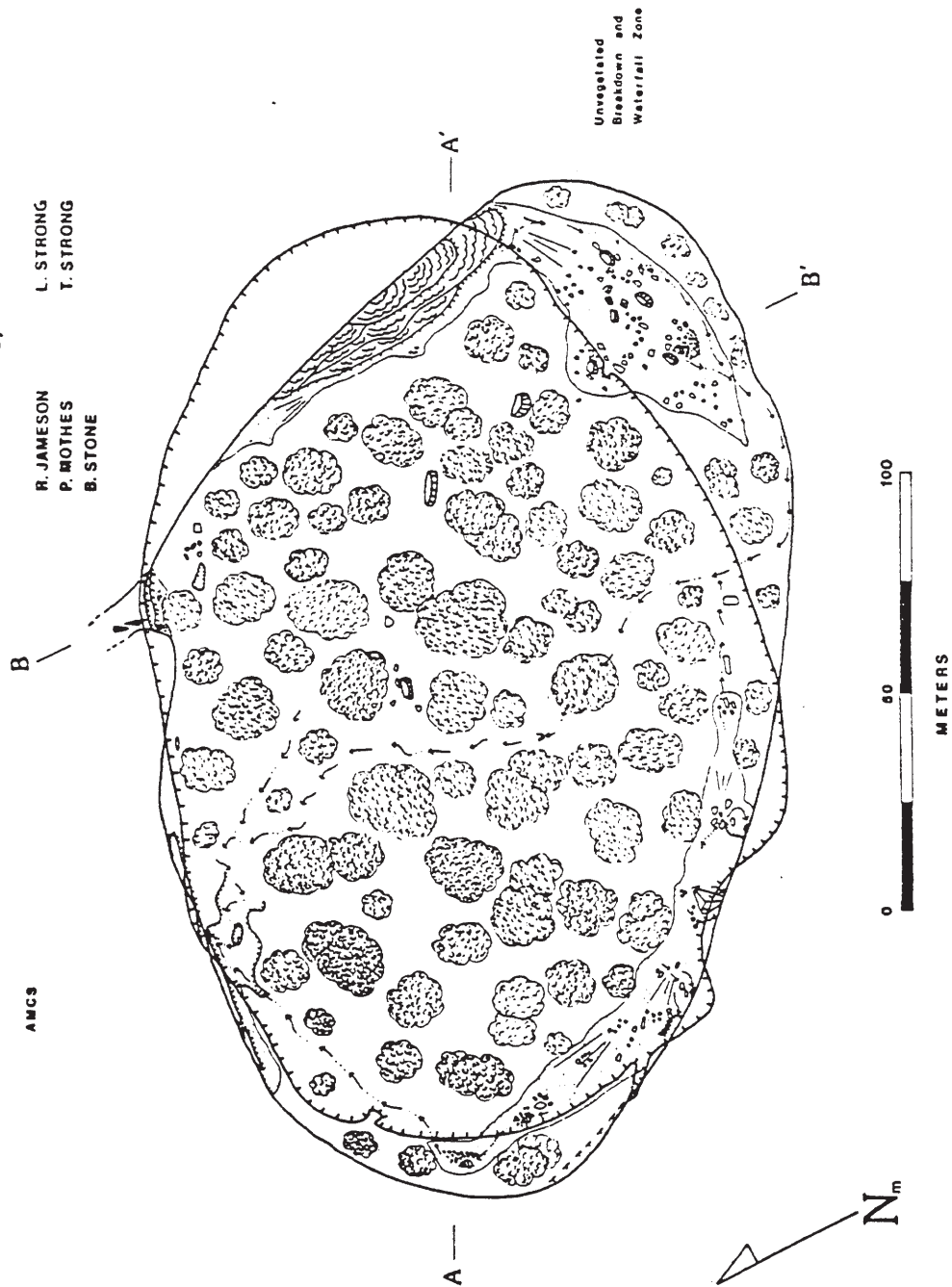
DRAFTED BY ROY JAMESON

AMCS

Suuntos and Tape Survey 9,11,12 June 1976

by

R. JAMESON  
P. MOTHES  
B. STONE  
L. STRONG  
T. STRONG



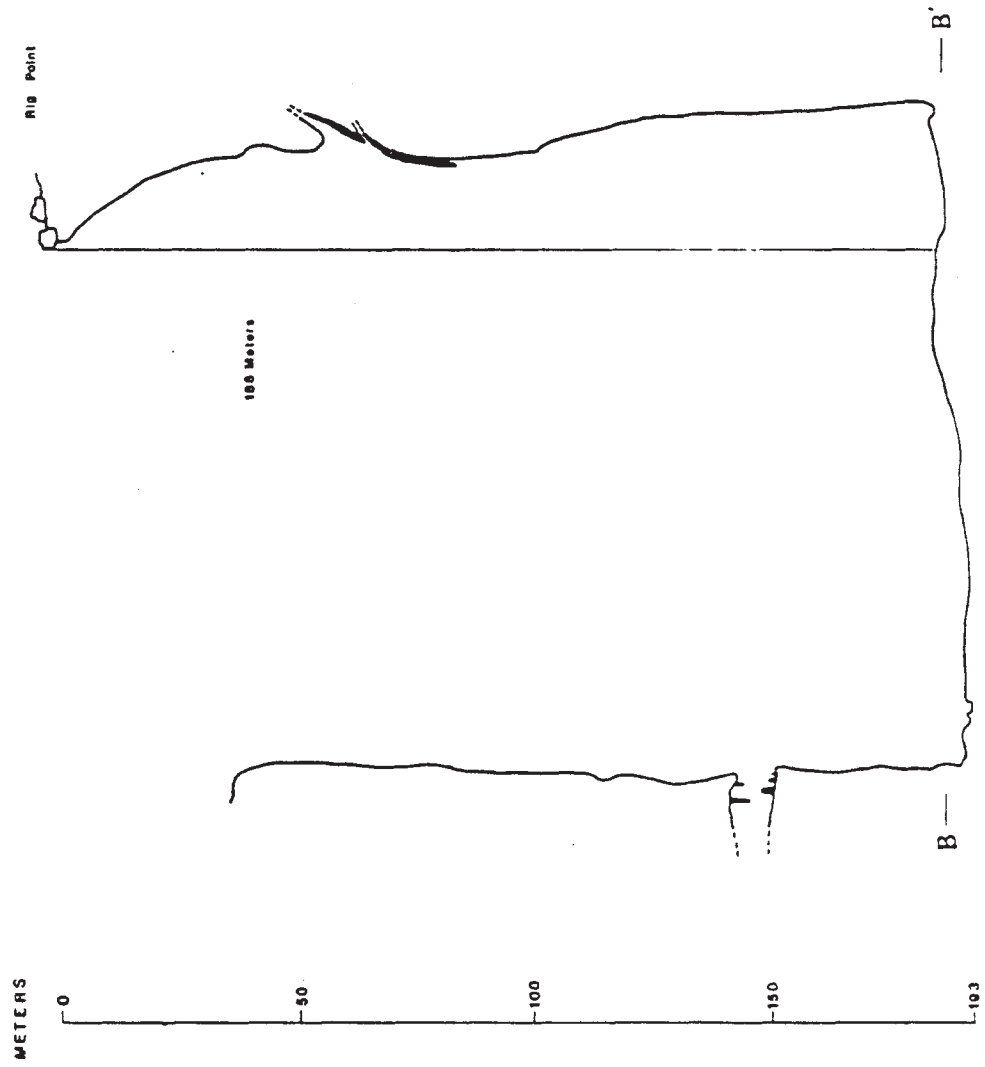
HOYA DE LA LUZ

Profile B-B'

Ground location May 24, 1976

Located by air reconnaissance Dec. 23, 1975.

L. O'loane G. Stiles  
B. Stone



near the bottom of the high entrance drop a stream wanders across the center of the pit, (several other stream beds join it) and sinks in mud at the opposite wall. This represents a poor lead, but should be checked when dry. More promising is an unchecked 10 meter wide and 6 meter high passage with large stalagmites located approximately 50 meters off the floor on the north wall. A prominent joint leads up to this entrance from the floor; the lower section of the northeast wall is very straight and leads directly to the entrance. Either a rappell or a long joint climb could be attempted, but both have disadvantages: the rappell would require pendulum swings, and the joint climb might require bolting. No subsidence trench is observed. The pit is formed in massive El Doctor limestone. The top third dips about 20 degrees westward and consists of easily observable beds of several meters thickness. It overlies much thicker beds dipping slightly eastward, but wall deposits and staining make observation of beds in the lower 2/3 difficult.

The pit was eerie and quite wet from the rain. It took several hours to explore the bottom, and when Larry and Bill began tandeming out the rain briefly returned, along with a fog which wafted over the ridge, then sank a third of the way into the pit. I was more fortunate and remained dry.

On June 10 we returned to Cueva de Campamiento and completed exploration and surveyed. The water level in the sump had risen nearly 2 meters.

The next day Larry left for the US while we returned to Luz and surveyed the bottom. Tom took telephoto pictures of the rest of us as we surveyed along the walls and down the streams, tape running in between trees and through water spray. Carbide lamps were unnecessary, which made for quick sightings. Slightly over half of the 2.2 kilometers of surveys were "underground", the rest were made outdoors on a marathon chop around the lip the next day. The terrain is heavily vegetated, and rock hopping makes movement even more difficult.

But to the north terrain was even worse. Karren blocks become high pinnacles, and travel is next to impossible. On June 13, Bill checked a lead located half a mile northwest of Luz among the pinnacles, while the rest of us hunted for Cueva del Llano de los Chiquitos. No one had any luck; Bill nearly fell out of a tree trying to figure out where he was, and we took the wrong trail and ended up miles from our proper destination.

On June 14, we fared only slightly better. Another cave in the Llano de los Caballos is located at the extreme eastern end in a narrow ridge which extends several hundred yards out into the llano. Christened Popcorn Everywhere Cave, or Cueva de Maiz Tostada, it is a single joint cave 190 meters long. The entrance is pleasantly large, but after 40 meters popcorn chimneys and popcorn crawls make for rough going. A lower level passage has cave pearls and bats; the cave ends in a series of muddy crawling rooms with several domes. The survey almost aborted several times due to popcorn lacerations, but in a fit of exasperation, Bill Stone saved the day at the edge of the formation room: he wanted to erect a sign entitled "Oztotl Sucks Cave." And several days of limited food brought on a further witicism: "Oztotl must have been out to lunch when he made this cave." Tired of rain, cows, and popcorn we quickly left the next day for Valles, the Condesa, and Micos.

## Exotic Diseases

The August 1976 issue of the TEXAS CAVER contains an article by C.J. Rushin on tropical diseases. Starting with the more common types of diarrhea such as Amoebic and Bacillary the article then discusses the more esoteric diarrheas such as Tropical Spruce, before moving on to cavers personal experiences with fun diseases like chiclero ulcer and beefworms. What every caver needs before leaving for the southern jungle is a practical lesson on how to pull the bot fly maggots from your body after the peanut butter treatment. If you plan a trip to Southern Mexico or are just interested in the grim details the August TEXAS CAVER can be obtained for 50c from Gill Ediger, Editor of the TEXAS CAVER, Box 8424, Austin, Texas 78712.

## CB's Illegal in Mexico

You should not take your citizen band radio into Mexico, it might be confiscated. Their operation is illegal in Mexico as they use the same channels as the Mexican police and fire departments, and the Mexican authorities are unhappy with the increasing interference from Americans operating illegally in Mexico.

Flash: Report is now that Mexico is establishing its own CB bands.  
Check before you enter Mexico.

[illegible]

For many years the exchange rate between the Peso and the Dollar has been fixed at 12.50 Pesos to the Dollar. But over the last several years inflation has been more severe in Mexico than in the United States and the 12.50 exchange rate became unrealistic. The Pesos a tourist got for his Dollar would buy less and less and this made a vacation in Mexico very expensive. So to encourage tourists the Mexican Government has allowed the exchange rate to "float" - that is to let the Peso be worth what ever traders are willing to pay for it. This value has recently been fluctuating at about 20 Pesos to the Dollar. The floating rate has one unfortunate side effect - shops and restaurants are less likely to accept Dollars as they don't know what they are worth. To avoid problems keep plenty of Pesos handy. Your Dollar will buy almost twice as much as it would before the Peso was devalued - so now is the time for a visit.



## Standardization of Mexican Cave Locations

by Peter Sprouse

The CETENAL 1:50,000 topographic maps rapidly being produced for all of Mexico contain a built-in aid for standardizing cave locations easily and accurately. Each sheet is overlain by the Universal Transverse Mercator Grid System. This metric grid is accurate, easy to use, and used and understood worldwide. Where each grid line intersects the margin of the map is the last three or four digits of a number that indicates the distance in meters north or east of the grid origin. By scaling off from the north and east grid lines the exact UTM coordinates of a point may be determined to the nearest 10 meters. A handy aid in this is the new Army micro-thin protractor which includes a 1000 X 1000 M scale designed for 1:50,000 maps.

For example, the UTM for Sotano de la Joya de Salas is 2562.47N, 469.21E. Its true UTM coordinates are actually longer numbers, these only allow us to locate the cave on its host topographic map. Anyone planning on caving in a mapped area could refer to the Cave Files and plot the coordinates of all caves, leads, etc. on the map, thus virtually eliminating duplication of work.

When working in a mapped area, determine the UTM for each cave, put it in your notebook, put it on the cave map, and notify the AMCS Cave Files. This system has the potential to be easily computerized. Here is an example of the cave location format:

Cave Name: Sotano de la Joya de Salas		State: Tamaulipas
Cetenal Map Number F-14-A-49	UTM North Coord. 2562.47N	UTM East Coord. 469.21E

## Russians Gaining in Depth Race

Russian cavers have succeeded in exploring the first cave system deeper than a kilometer outside of France. Groups from Kiev and the Crimea reached the terminal sump of KILSI (or KIEVSKAYA) in Sept. 1976 at a depth of -1,080 meters. Discovered in 1973, by 1974 it had been pushed to -520 meters, and to -700 in 1975. It is located on the eastern border of Uzbekistan in the Pamirs-Alay Range at an elevation of 2500 meters. Russian Cavers are government employees who have graduated from a four year "school" of speleology. This may put them in a position to be the world's deepest cavers - but its not time to give up in Mexico yet, even if we do have to pay for it out of our own pockets.

Source: p. Courbon

## San Juan Area

Nov 1976

People: Tracy Johnson, Henry Schneiker, Blake Harrison, Jill Dorman,  
 Roy Jameson, John Mall, Mike Whittig, Jeff Horowitz, Preston  
 Forsythe, Alex Cochrane, Bill Stone, Frank Binney

The Bozo Bus crew arrived in La Purisima after a marathon 17 hour drive and teamed up with Henry and Tracy for a week of ridge walking.

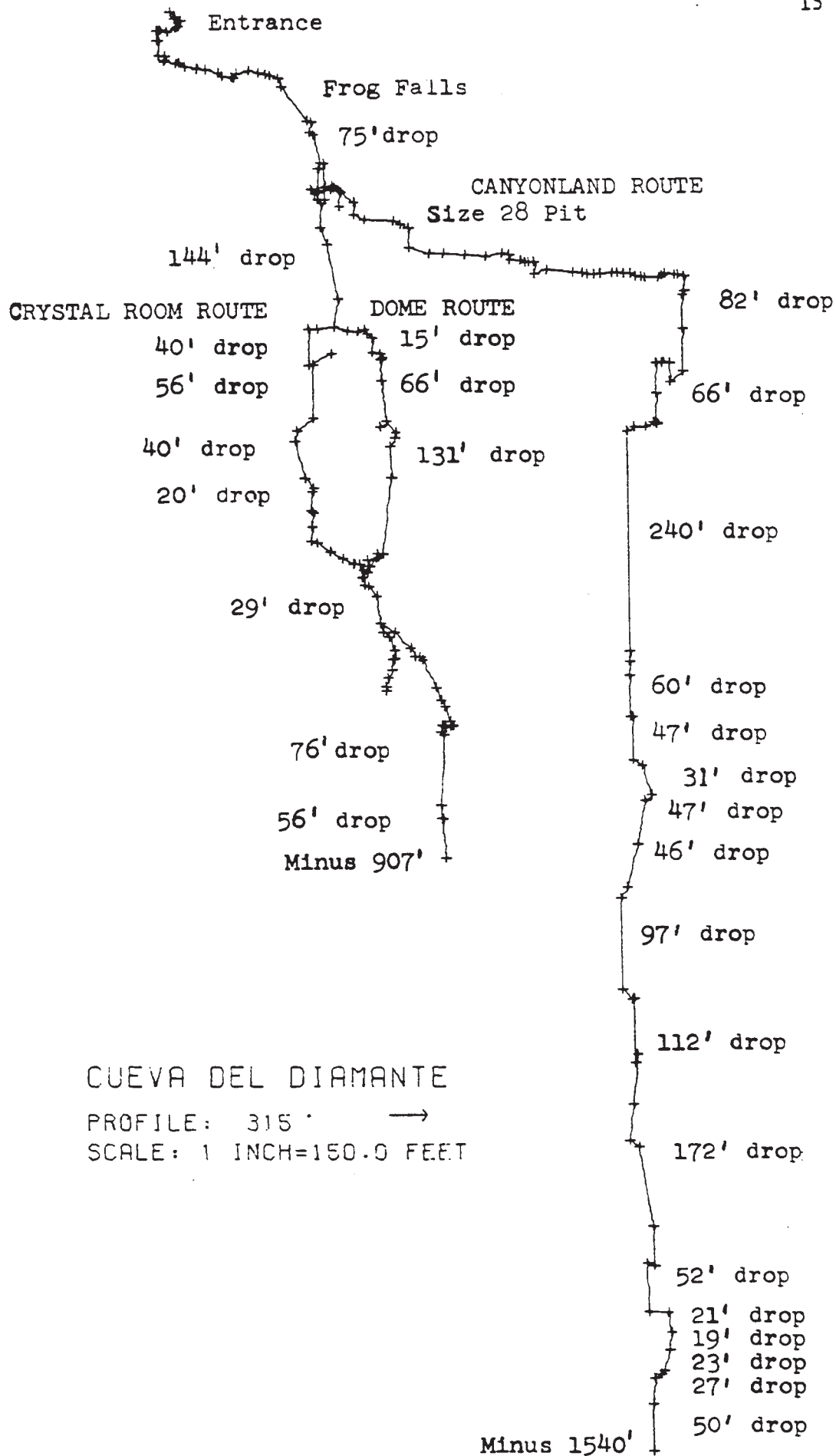
A new road was followed up the west range above La Purisima to Las Tinajas. Although the locals could not have been friendlier there was a lack of promising karst. Several pits (up to 150') were bottomed before we left, but the ambitious hiker may find some good leads in Huilotla, 2 hours west of Tinajas.

In the first attempt at 4 wheeling, east of Conca, we lost a full day as we mud lucked our way from Arrovo Seco to Lagunillas (40km). This area is a raised volcanic plain and has dubious caving potential. Returning to Conca via El Rayon and Rio Verde we found yet another new 4wd road going east from Conca. This one took us over half way up the mountain before stopping abruptly. We packed up for a 5 day trip, hiked up and set up camp at Agua Fria, south of Tierras Prietas and directly above El Sabinito - the road will connect all three when finished. During the next 3 days many clogged arrovo entrances were found. Hours of futile digging and squirming yielded little. The two most promising pits found were not even descended, both near the south edge of the range. Frank free climbed one for 60 feet but we ran out of handline. The other was roughly 30 feet in diameter and well over 200 feet deep. Though it appears to take no water, it is situated at the edge of the 2000'+ Santa Maria Gorge and might go.

On the last day of scouting we decided to do some long range hiking. Tracy and Henry left for Tucson, Preston, John and I headed north and the rest went south east. As always seems to be the case, the best leads come when you have to leave. Roughly 5 miles north of camp we descended into a series of fascinating karst features. Large streams appearing and sinking in the same doline through grass sumps. But the largest doline didn't sump. Viewed from a distance the sink is about 1kilometer long and half as wide - perhaps a 100 meter deep lip on the valley side and the towering mountain forming the high side. A 7 meter wide stream meandered across the floor and disappeared into a spectacular 30 meter high head wall of El Doctor limestone at one end. Preston and I fired up our lamps and headed in. Five solution scoured free climbs (a bit hairy) led to a 20 meter free drop with the stream dropping in. Definitely a going system! On the way out Preston dislodged a key rock holding back a pool covered with 2" of vampire guano. As I was in the middle of a sporting free climb at the time there was no escape from the surprise falls. Grim.

Upon returning to camp the others recounted almost losing Roy to a rock slide at a promising dig. All in all not a bad scouting trip. The arroyo cave to the north is called Cueva de la Pena and ironically has a spectacular view of Lagunillas and the volcanic plain to the east. If the cave goes that way it might bottom at less than 500m - but if it goes west, with all that water . . . .?

Bill Stone



## Caving in Puebla, Vera Cruz, and Oaxaca

Andy Grubbs, David McKenzie, James Reddell and Carmen Soileau left Austin on the 15th of December and drove directly to the Cuetzalan, Puebla area, about 90km NW of Jalapa. Coincidentally running into the Lords (Peter and Sue along with Peter Sprouse and Terri Treacy) who were arriving to follow up on their recent discovery of a large section of cave joining Sima Esteban with Grutas de Guayateno, as well as several pits. The combined group discovered nearly 20 new caves, including several sumideros. After the Lords left, the group mapped about a mile in a new cave, Cueva de Tasalolpan and collected a troglobitic tarantula. Moving on to a volcanic area near Jalapa, they investigated a lead from a 1904 treatise on bats, which led them to the 200m long lava tube Cueva de Infiernillo. Also visited was Grutas de Camposantos, a large one room bat cave.

Next they drove south to Acatlan, Oaxaca, where they surveyed nearly 2km in Cueva de Maravillas, leaving only small side leads. Many biological finds were made, including a new highly cave adapted catfish, about 6 inches long with a thin ribbon tail. Moving north to Cuixtlañuac, Veracruz, east of Cordoba, they found three caves with large streams in them, none of which were completely explored. In one of these caves, Cueva de Sala Seca, the upstream passage, 20 feet wide and 20 feet high, could not be checked, as the current was too swift to swim against. Also visited was the nearby Atoyac area, as well as an area near Orizaba. Here they pushed Cueva de Macinga for 150m through a 63°F stream to a terminal siphon.

On the way back to Texas the group stopped by Cueva de Cuartels in the Sierra Tamaulipas. This cave has about 2km of large passage and is currently being heavily mined for phosphate. The trip lasted 30 days, 38 caves were visited and about 5km of passage mapped.

A. Grubbs, B. Russell, & P. Sprouse

## CUEVA DE DIAMANTE

Mark Minton, Richard Minton, Harold Goldstein, Barbara Vinson, Neal Morris, Maxine Miller, Ron Tilkens, John Ferguson, Tom Shifflett, and Cady Soukup returned during the holidays to Cueva de Diamante. This cave is located on the crest of the Sierra de El Abra about 50km North of Cd. Valles, S.L.P. The small entrance to this cave had been discovered in 1974, soon after the road to the nearby Otate Mine was completed. The Minton-Goldstein crew has pushed the cave through a long narrow canyon to a deep pit at about -500 feet. Reaching this point with rope was difficult as the high narrow canyon was, in places, less than one foot wide and rope had to be passed along through the tight places. The pit at the end of the canyon was a 300 foot drop immediately followed by drops of 50', 30', 45', 45' a 10' climb down, a 100' free drop, a 130', then a 180' broken by a ledge a 55' drop, a 20' drop, a 15' climb down to a 50' drop where they ran out of rope. Looking down this pit they could see the black entrance of the next drop. At this point survey was at -1534 feet (468m), and a branch passage also ended in an unclimbable pit. Over 600 man hours were spent on this cave with 2050 feet of rope in the cave, the derigging trip taking over 24 hours. They didn't have enough rope for Diamante as they thought the range was only 1500 feet high. Apparently, the range is somewhat higher and the entrance to Diamante could be as much as 1800 feet above the water level. Some time was spent looking for new caves nearby. Two new pits were explored; an archeological cave was explored to -800 feet in a series of drops and another pit found by Cady had a 91 foot entrance drop to a slope ending in a 410 foot pitch.

Bill Russell

## The Joya de Salas ... A Mystery Unsolved

The exploration of El Sotano de la Joya de Salas was begun by AMCS members in 1965 - yet 12 years later the cave has still not been bottomed. The recent AMCS success in Sotano de San Agustin encourages us to take a close look at the Joya's possibilities.

September, 1973: A group of six Canadian, English and Texas cavers failed to pass the rimstone barriers that stopped exploration at -1,234 feet. On the way out Peter Lord and Blake Harrison stopped to check a lead that goes back underneath the drop that is just below the Angostura de Linda. A narrow, but interesting passage, Peter pushed on through a squeeze while Blake stayed behind. The passage dropped steadily down climb-downs to a point where Peter estimated that he was nearing the level of the deepest portion of the cave. He was in a low water passage that ended in a rimstone dam that came to within about 8 inches from the ceiling. Beyond, Peter looked into a large rift passage running at right angles to the passage- he was in a "T" junction. There were absolutely no rocks to be found, but by splashing water over the dam Peter estimated it was about a 70 foot drop to the bottom of the rift. The dam is rotten flowstone and could quickly be chipped away with a hammer.

Joya de Salas drains over 100 km<sup>2</sup> of land area. Past the Sima Terrible (-800 ft level) the passage becomes constricted and finally sumps at -1234 ft. It seems unlikely that the whole volume of water entering the cave goes this way. Perhaps the rift passage will put us back on the route to the resurgence.

No cavers have been to the Joya since the CETENAL sheet came out. These new maps now rule out the possibility of a resurgence to the west, leaving the Nacimiento del Rio Sabinas as the only likely outlet - 1,400 meters below. Also the map shows several unvisited dolinas 1.5 km S.E. of Joya that look very promising.

Peter Sprouse

### Isthmus of Tehuantepec

Dec. 27-Jan. 6

Don Broussard and David Honea investigated an uninhabited region in the State of Oaxaca, lying northeast of Juchitan de Zaragoza, looking for caves. The area was rumored to have limestone and some cave potential. A few caves were found but were mainly horizontal and did not seem very promising. The only access is by backpacking and the limestone area is at least two to three days hike from any vehicular transportation.

David Honea



## RETURN TO HUAUTLA

With the 1976-77 Christmas season, AMCS cavers have ended their six-year moratorium on caving in the Huautla, Oaxaca karst region. Four and one half weeks' caving by several groups deepened the recordholding Sotano de San Agustín to -766m and La Grieta ("The Fissure") to -420m. Since the decline in local relations in 1970, at least two Mexican caving groups have visited Sotano de San Agustín as did a group of French-Canadian cavers in December, 1975. Neither of these groups have apparently undertaken any surveying in the area. By 1976 several Americans were planning trips to Huautla. Richard Schrieber was on the 1968 trip that bottomed San Agustín and remembered doubts about whether or not the cave was really completed (see Canadian Caver No. 3). Bill Stone wanted to push La Grieta (which had only been explored down a few drops) and back up Schrieber's group if they succeeded in finding new passage in San Agustín.

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"For months we thought about San Agustín. Fantastic fissure. Pounding waterfalls. Beautifully banded walls. Swinging from ledge to ledge. 3000+ feet potential depth. Still going...." John Fish, Canadian Caver #3, 1970.

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On Dec. 15, Schrieber's van carrying Don Broussard (TX), F.T. Davis (GA), Steve Knutson (KY), Phil Odell (KY), Richard Schrieber (GA), Jim Smith (GA), and Mark Stock (TN) arrived in Huautla and they immediately rented a house. This group entered a trunk passage in the lower part of San Agustín and bypassed a breakdown choke, entering virgin cave beyond. The new section of cave dropped downward with an increasing amount of water, and they surveyed in several trips from the entrance to a depth of -648m before turning back. As the group prepared to leave, Bill Stone's truck arrived from Austin carrying Frank Binney (TX), Alexia Cochran (IL), Jeff Horowitz (TX), Roy Jameson (TX), Patty Mothes (TX), and Bill Stone (TX). They decided to continue the survey of San Agustín and Jim Smith decided to join them, while the remainder headed back to the U.S. in Richard's van. The new group pushed the ever deepening stream passage, (sometimes measuring 30X30m), from a 103 hour camp at the -530m level, surveying to a depth of -766m. The furthest point of penetration was to about the -800m level, where two waterfalls funnel down a drop with a combined volume of 30 cubic feet per second. Activities also focused on La Grieta (The Fissure), which is higher and several kilometers away from the San Agustín dolina. La Grieta was surveyed to a depth of -420m despite severe problems with the local Indians - several confrontations and rope-cutting incidents occurred before a tenuous agreement was reached with the authorities in Plan Carlota (apparently the municipality that governs La Grieta). Arriving to augment the cavers at various times were Jill Dorman (TX), Blake Harrison (TX), Tracy Johnson (AZ), Sheila Johnson (AZ), Dave Kramer (AZ), Tom Patterson (TX), Gary Stiles (AZ), and Dan Watson (TX).

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Nevertheless, even if the boulder choke is forced, it is not likely that any significant depth will be added to the cave. John Fish, Canadian Caver #3, 1970

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An unusual find during the expedition was the discovery of "Deer Cave", a multi-drop cave consisting of four drops (Max. 20m) ending in a mud-floored room. This room contains many complete skeletons of what appear to be deer, along with well defined tracks in the mud. Some of the skeletons were flowstone-encrusted and were present at the bases of all the upper pitches as well. No evidence of human involvement was observed, nor did it appear possible that the deer had any possible means to exit. No suggestions of a paleo entrance were present.

All in all, the work accomplished in Huautla was very successful. A new Western Hemisphere Depth Record was set at -760m. For the first time the goal of a kilometer deep cave in Mexico is within reach. The maximum depth potential for San Agustin is reckoned to be about 1,200m with another 250m more possible from connections with higher caves. Unfortunately the first and second efforts in San Agustin were not able to join forces in a single push as was hoped for - a combined team could have bottomed the cave. Public relations in the Huautla region as a whole have not changed as much as was hoped. Although the officials in Huautla itself were receptive to cavers and there is no longer a military roadblock at Teotitlan del Camino, the local inhabitants still have little tolerance for outsiders and especially consider Gringos fair game for extortion and harrassment. Only with impeccable credentials, a strong public relations drive, and lots of patience can a continuing effort succeed. An AMCS expedition is planned for this Spring.

### +900m in Canada ?!!

Rumors have reached our ears of a very deep cave on Vancouver Island, Canada. "D.C.G. Cave" has reportedly been explored upwards from the entrance to +900 meters. We are attempting to verify this and will hopefully have accurate details in the next Activities Letter.

Source: Paul Courbon

First report from local cavers is that this cave might be D-6 or QMS Cave (for Quatsino Master System), but that they have not heard of any exploration to depths (or heights) of anywhere near 900m.

## Cueva de Brinco

Over the Thanksgiving holidays a large group of Austin cavers went to Cuevad del Brinco, 8 hours by 4wd roads N.W. of Cd. Victoria, Tamps. On Saturday, November 27, Sheila Balsden, Bon Broussard, Andy Grubbs, David Honea, Janet Honea, Peter Sprouse and Terri Treacy formed two survey teams to map up the waterfall passage at the end of the main trunk and into the new area discovered on the May 1976 trip, while others took photos in the helictite passage. At a major junction beyond the waterfall Sprouse's team went left, and beyond where the passage supposedly ended discovered a major stream passage which was explored for 80m and continues as a 4m diameter, stream passage going down the dip-(2 cfs). Wetsuits are needed for further progress. Don's team surveyed the right hand passage but stopped mapping before reaching the point where Neal Morris had reported a large passage sloping down dip.

The next day (Nov. 28), Sheila, David and Peter started a "short" survey off the bottom of the Traverse Pit. This led through a guano area to a lower vadose passage which steadily dropped until intersecting an unusual phreatic tube 60m long (dubbed "Silvertip Boulevard"). One end of the tube pinched to a reasonable digging lead while the other end intersected another stream passage - the fourth stream. The cavers surveyed down a long, steeply sloping canyon passage to a point where the stream (trickle) was lost through a small hole. Poking around for a while produced a passage which rejoined the stream at what was named Eternity Junction, the end of the survey. This point is 533 feet below the entrance and is currently the deepest point in the cave. All in all, Brinco is now well over a mile long and has several passages going well.

Peter Sprouse

## SCHOOL BUS SCOOPS ZOQUITLAN AREA

People: Jim Rodemaker, Loretta Poer, Freddie Poer, Pete Strickland, Preston Forsythe, Shari Larason, Bill Mayne, Gilbert Pena, Barbara MacLeod, Lisa Wilk, Graham Jordan, Maxine Miller.

The Kirkwood 4WD caver school bus left Austin with 12 people and drove via Cd. Valles to Acatlan in extreme Northern Oaxaca. Members of the group made a detailed map of the Burial Chamber in Cueva de Culebra, and then joined with Bob Thrun and the Lord's to map almost a mile in Cueva de la Finca near Laguna Verde. They checked Cueva de Caballo - (this cave has Indian handprints and reportedly also a painted horse - hence the name). On the hill above this cave was a pit tentively named Sotano Bonito with the largest room yet found in the area, estimated at 300x500 feet. After New Years they drove to Zoquitlan, Puebla about 30km north of Huautla, Oaxaca. This town is situated on the edge of a karst area just east of the crest of the high range that borders the coastal plain north of Huautla. On the first day in the area the school bus crew (now reduced to seven) walked to the west and found a promising area of closed vallevs. They camped here the next day and were barely able to enter two large steeply dropping river caves. The first cave, Cueva del Rio Texocotla, had an entrance 50 feet wide and 20 feet high, and they were able to follow this cave down two drops before they would have to get very wet to continue. In the next dolina was Sotano del Rio Covo Mealpa with a 175 foot entrance drop. They rappelled down to a ledge where the drop narrowed and spray filled the shaft. It was decided to return with wet suits. The next promising cave, Cueva de Coyomeapan was located upstream along the Rio Coyomealpa. The entrance to the cave was only four feet above the river level and was scoured clean by floodwaters that frequently enter the cave. They were able to follow this cave down 5 drops of 30 to 50 feet to where the cave picked up some water at an 80 foot drop and it was decided to postpone exploration.

The Zoquitlan area appears to be a promising karst area as the rivers sink in the pine trees and could, if conditions are right, go almost to sea level.

Bill Russell

## editorial

Sotano de San Agustin has been pushed to -2500 feet, and several new caves have been discovered to the north of Huautla that may go even deeper. Mexican caving has reached the point where the resources and organization required to fully explore these caves exceeds the present capabilities of the AMCS. To successfully engage in World Class caving the organizational level of the AMCS will have to be considerably augmented.

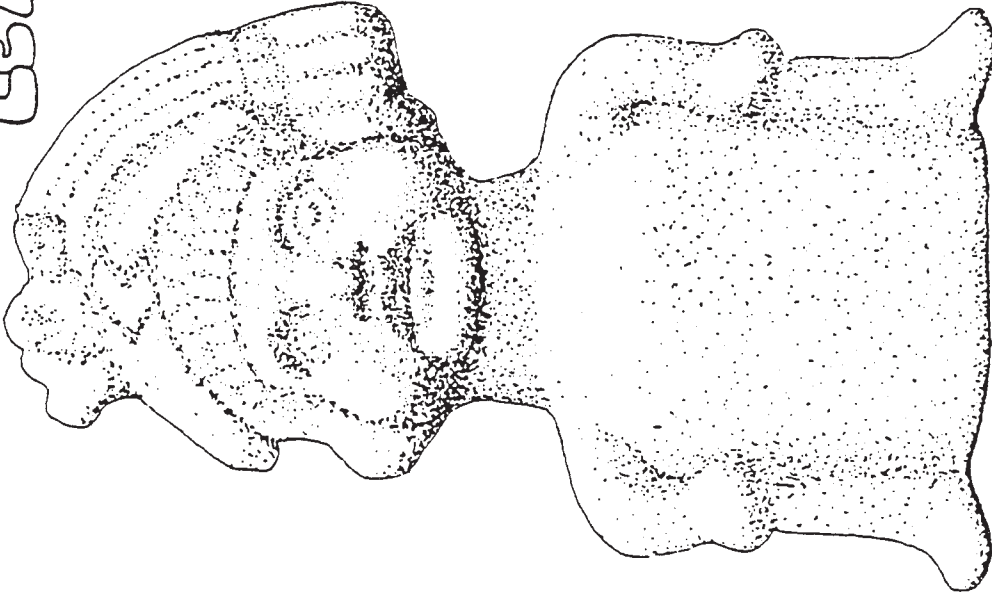


# AMES ACTIVITIES

## LETTER

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Back Cover

Life-size drawing by George Nelson of a small figurine found in a cave in southern Mexico. Drawn from a slide, figurine was not removed from cave.

Front Cover

Looking out the entrance to Hoya de La Luz

